

IV. DEFICIENCY ANALYSIS

This chapter presents an analysis of the ability of the existing road network to serve the area's travel desires as the area continues to grow. The essence of transportation planning is the ability to test and analyze different highway configurations for their efficiency in serving the area as it grows. Care and emphasis is placed, not only on detecting the major deficiencies, but on understanding their cause. Travel deficiencies may be localized. It may also be the result of inadequate pavement width; substandard highway design; inadequate intersection controls; an uncharacteristic peak travel demand; or some combination thereof. The underlying problem may be caused by a system deficiency such as a need for a bypass, loop facility, or additional radial service.

EXISTING ROAD NETWORK

Farmville's road network in the central area is characterized by a gridiron pattern. The remaining areas are served by radial streets which provide traffic movement from the outlying areas to the central area. The radial streets are US 258, NC 121, and SR 1139. The majority of the traffic from these radials cross in the CBD at the intersection of Wilson Street and Main Street. This causes congestion problems and the quickly decreasing practical capacity on these and surrounding streets.

The radial streets do not carry an overwhelming amount of through traffic. Farmville has a considerable amount of internally generated traffic. To enter the Farmville central area from the south there are only two routes, US 258 and Fields Street (US 258 Truck Route). To enter the Farmville central area from the north there are also only two routes, US 258 and NC 121. Traffic from the US 264 Freeway flow into the central area from the north side on US 258 and from the east side on SR 1139. A loop system is practically nonexistent. There is a segment connecting a pair of radials, but it is not continuous. It is SR 1221 with US 264 Freeway. Therefore mostly no intra-area circulation is allowed without being routed through downtown.

1991 TRAVEL ON EXISTING ROAD NETWORK

A good indication of the adequacy of the existing road network is a comparison of traffic volumes with the ability of the streets to move traffic. In an urban area, a street's ability to move traffic is generally controlled by the spacing of major intersections, the width of pavement, and the traffic control devices utilized. Thus, the ability of a street to move traffic can be increased to some degree by restricting parking and turning movements; using proper sign and signals devices; and by the application of other traffic engineering techniques. Capacity is defined as the maximum number of vehicles which has a reasonable expectation of passing over a given section of a roadway in one direction, or in both directions, during a given time period under prevailing roadway and traffic conditions. The relationship of